

ABSTRACT OF THE INVENTION

In general this invention relates to an antifreeze composition that can be used in the cooling systems of internal combustion engines, for example, in heavy-duty diesel engines, light duty trucks and cars. The antifreeze composition can be added to water or other suitable liquid coolant in the cooling system, to lower the freezing point temperature of the coolant and inhibit corrosion of metallic components associated with the cooling system. The antifreeze composition is particularly well suited, although not exclusively, for use with hard water. The antifreeze composition includes an organic acid component comprising adipic acid and at least one of benzoic acid and one or more C₉-C₁₂ dicarboxylic acid--or salts of these acids. The antifreeze composition also includes other anti-corrosive additive, for example, molybdate, nitrite, nitrate silicate azoles and a variety of buffer agents.